



May 4, 2007

CERTIFIED MAIL

Mr. Douglas Eberhardt, Chief
Permit Issuance Section
USEPA, Region IX, W-5-1
75 Hawthorne Street
San Francisco, CA 94105-3901

RE: NPDES Permit Renewal Application #NN0000019; Corrections

Dear Mr. Eberhardt:


Arizona Public Service Company (APS), Four Corners Power Plant conducted a review of the NPDES Renewal application, NN0000019 dated October 5, 2005 in conjunction with our recent 316(b) activities. This review revealed and reinforced that we have a "Recirculated Cooling Water" system as defined in 40 CFR 423.11(h), rather than a "Once Through Cooling Water" system defined in 40 CFR 423.11(g). APS requests that you make changes in our application documentation and reflect this in the final issued permit.

Please make the following changes:

1. Replace the tab index with the new one attached
2. Replace the TABLE OF CONTENTS with the new one attached
3. Replace EPA Form 1 General with the new form attached
4. Replace pages 1-4 of EPA Form 2C NPDES with the new pages attached
5. Replace the Flow Diagrams in Section 9 & 10 with the new flow diagrams attached

APS appreciates your consideration in affecting these changes in our Permit Renewal Application. If you have any questions regarding these changes to our permit renewal application, please call Carl Woolfolk at (505) 598-8799.

Sincerely,


David L. Saliba
Plant Manager

CDW/HAB/jmd

Attachments (6) 1. NPDES Permit Reapplication (Oct.2005) tab index, 2. Table of Contents, 3. EPA Form 1 General, 4. EPA Form 2C NPDES. 5. Water Flow Diagram, APS Dwg. #114058, 6. Recirculated Cooling Water Flow Diagram, APS Dwg. #114046

cc: Eugene Bromley USEPA, Region 9 (without attachments)
Nancy Yoshikawa USEPA, Region 9 (without attachments)
Patrick Antonio NNEPA, (with attachments)

1	Cover Letter
2	EPA Consolidated Permit Program General Information Form 1
3	EPA Consolidated Permit Program Wastewater Discharge Info. Form 2C
4	USGS Fruitland Quadrangle 7.5 Minute Series Topographic Map
5	USGS The Hogback North Quadrangle 7.4 Minute Series Topographic Map
6	Map of Four Corners Power Plant Lease Boundary
7	Four Corners NPDES Analyses Performed by Contract Laboratories
8	Four Corners Schematic of Existing Permit Sample Points
9	Water Flow Line
10	Four Corners NPDES Recirculated Cooling Water Flow Diagram
11	Water Treatment Chemicals Discharged through 01A and 01E
12	Design Features Relevant to NPDES Application
13	Copy of Current NPDES Permit
14	
15	

TABLE OF CONTENTS

- 1. Cover Letter**
- 2. EPA Consolidated Permit Program General Information Form 1**
- 3. EPA Consolidated Permit Program Wastewater Discharge Information Form 2C**
- 4. USGS Fruitland Quadrangle 7.5 Minute Series Topographic Map**
- 5. USGE The Hogback North Quadrangle 7.4 Minute Series Topographic Map**
- 6. Map of Four Corners Power Plant Lease Boundary**
- 7. Four Corners NPDES Analyses Performed by Contract Laboratories**
- 8. Four Corners NPDES Schematic of Existing Permit Sample Points**
- 9. Water Flow Line**
- 10. Four Corners NPDES Recirculated Cooling Water Flow Diagram**
- 11. Water Treatment Chemicals Discharged through 01A and 01E**
- 12. Design Features Relevant to NPDES Application**
- 13. Copy of Current NPDES Permit**

FORM 1 GENERAL		EPA		U.S. ENVIRONMENTAL PROTECTION AGENCY GENERAL INFORMATION <i>Consolidated Permits Program</i> (Read the "General Instructions" before starting)		1. EPA I.D. NUMBER			
						S NND069409522		T/A C	
						F		D	
						1 2		13 14 15	

II. POLLUTANT CHARACTERISTICS

INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of bold-faced terms.

SPECIFIC QUESTIONS	MARK "X"		
	YES	NO	FORM ATTACHED
A. Is this facility a publicly owned treatment works which results in a discharge to waters of the U.S.? (FORM 2A)		X	
C. Is this a facility which currently results in discharges to waters of the U.S. other than those described in A or B above? (FORM 2C)	X		X
E. Does or will this facility treat, store, or dispose of hazardous wastes? (FORM 3)		X	
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)		X	
I. Is this facility a proposed stationary source which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X	

GENERAL INSTRUCTIONS

If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill-in area below. Also, if any of the preprinted data is absent (the area to the left of the label space lists the information that should appear), please provide it in the proper fill-in area(s) below. If the label is complete and correct, you need not complete Items I, III, V, and VI (except VI-B which must be completed regardless). Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.

PLEASE PLACE LABEL IN THIS SPACE

III. NAME OF FACILITY

C SKIP		FOUR CORNERS STEAM ELECTRIC STATION (FOUR CORNERS POWER PLANT)	
1	15 16 - 29 30	69	

IV. FACILITY CONTACT

A. NAME & TITLE (last, first, & title)		B. PHONE (area code & no.)	
C 2 SALIBA, DAVID L., MANAGER		505 598 8209	
15 16	45 46 - 48	49 - 51	52 - 55

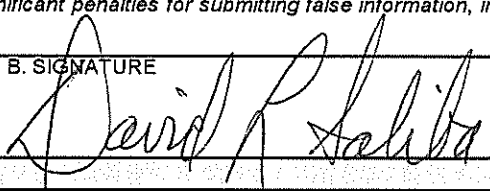
V. FACILITY MAILING ADDRESS

A. STREET OR P.O. BOX	
C 3 PO BOX 355, MS 4900	
15 16	45
B. CITY OR TOWN	
C 4 FRUITLAND	
15 16	40 41 42 47 - 51

VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER	
C 5 20 MI SW OF FARMINGTON, NM; END CR 6675	
15 16	45
B. COUNTY NAME	
SAN JUAN	
46	70
C. CITY OR TOWN	
C 6 FRUITLAND	
15 16	40 41 42 47 - 51 52 - 54

CONTINUED FROM THE FRONT

VII. SIC CODES (4 digit in order of priority)												
A. FIRST						B. SECOND						
C 7	4911	(specify)	ELECTRIC SERVICES			C 7	NA	(specify)	NA			
15	16	-	19			15	16	-	19			
C. THIRD						D. FOURTH						
C 7	NA	(specify)	NA			C 7	NA	(specify)	NA			
15	16	-	19			15	16	-	19			
VIII. OPERATOR INFORMATION												
A. NAME										B. Is the name listed in Item VIII-A also the owner?		
C 8	ARIZONA PUBLIC SERVICE COMPANY										<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
15	16									55	66	
C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box; if "Other," specify.)								D. PHONE (area code & no.)				
F = FEDERAL		M = PUBLIC (other than federal or state)		(specify)		P		INVESTOR OWNED		C		
S = STATE		O = OTHER (specify)				56				A	602	
P = PRIVATE										15	16 - 18	
										19 - 21	22 - 25	
E. STREET OR P.O. BOX												
PO BOX 53999												
26	55											
F. CITY OR TOWN						G. STATE	H. ZIP CODE	IX. INDIAN LAND				
C B	PHOENIX						AZ	85072	Is the facility located on Indian lands?			
15	16					40	41 42	47	-	51	52	
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO												
X. EXISTING ENVIRONMENTAL PERMITS												
A. NPDES (Discharges to Surface Water)						D. PSD (Air Emissions from Proposed Sources)						
C 9	T	I	NN0000019			C 9	T	I	NA			
15	16	17	18			30	15	16	17	18	30	
B. UIC (Underground Injection of Fluids)						E. OTHER (specify)						
C 9	T	I	NA			C 9	T	I	NN-OP- 00-06			
15	16	17	18			30	15	16	17	18	30	
C. RCRA (Hazardous Wastes)						E. OTHER (specify)						
C 9	T	I	NA			C 9	T	I	NA			
15	16	17	18			30	15	16	17	18	30	
XI. MAP												
<p>Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements.</p>												
XII. NATURE OF BUSINESS (provide a brief description)												
<p>ARIZONA PUBLIC SERVICE COMPANY (APS) GENERATES ELECTRICITY AT THE FOUR CORNERS COAL FIRED STEAM ELECTRIC STATION (FOUR CORNERS POWER PLANT) FOR USE IN ARIZONA, CALIFORNIA AND NEW MEXICO.</p> <p>APS IS THE OPERATING AGENT ON ITS OWN BEHALF AND ON THE BEHALF OF THE FOLLOWING PARTICIPANTS:</p> <p>SALT RIVER PROJECT AGRICULTURAL IMPROVEMENT AND POWER DISTRICT</p> <p>SOUTHERN CALIFORNIA EDISON</p> <p>EL PASO ELECTRIC COMPANY</p> <p>PUBLIC SERVICE COMPANY OF NEW MEXICO, AND</p> <p>TUCSON ELECTRIC POWER COMPANY</p>												
XIII. CERTIFICATION (see instructions)												
<p>I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.</p>												
A. NAME & OFFICIAL TITLE (type or print)						B. SIGNATURE			C. DATE SIGNED			
DAVID L. SALIBA, MANAGER									050407			
FOUR CORNERS POWER PLANT												
COMMENTS FOR OFFICIAL USE ONLY												
C												
C												
15	16									55		

Please print or type in the unshaded areas only.

EPA I.D. NUMBER (copy from Item 1 of Form 1)
NND069409522Form Approved
OMB No. 2040-0086
Approval expires 5-31-92

FORM 2C NPDES		U.S. ENVIRONMENTAL PROTECTION AGENCY APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURAL OPERATIONS <i>Consolidated Permits Program</i>					
I. OUTFALL LOCATION							
For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.							
A. OUTFALL NUMBER (list)	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER (name)
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	
001	36	42	16.5	108	29	12	NO-NAME TRIBUTARY TO CHACO RIVER
01A	36	41	30	108	28	9	RECIRCULATED COOLING WATER POND
01E	36	41	30	108	28	12	RECIRCULATED COOLING WATER RETURN
							CANAL
01B	NA			NA			NO ESTABLISHED DISCHARGE POINT
II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES							
A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (e.g., for certain mining activities), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.							
B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.							
1. OUT- FALLING (list)	2. OPERATION(S) CONTRIBUTING FLOW			3. TREATMENT			
	a. OPERATION (list)	b. AVERAGE FLOW (include units)		a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1		
001	RECIRCULATED COOLING	3-4.6 MGD		RECIRCULATED COOLING WATER	1	F	
	WATER POND DISCHARGE/BLOWDOWN			POND			
				(1200 ACRES)			
01A	RECIRCULATED COOLING	1000-1714 MGD		RECIRCULATED COOLING WATER	1	F	
	WATER RETURN			DISCHARGE CANAL (5 ACRES)	4	C	
	A. STORMWATER RUNOFF*			OIL BOOMS	1	X	
	B. RECIRCULATED COOLING WATER						
01B	CHEMICAL METAL CLEANING	NA		NA	NA	NA	
	WASTEWATER**						
01E	COMBINED WASTE	13 MGD		CWTP (15-17 ACRES)			
	TREATMENT POND (CWTP)			SEDIMENTATION	1	U	
				FLOCCULATION	1	G	
				COAGULATION	2	D	
01E	A. BOTTOM ASH SLUICE WATER	8.0 MGD		REUSE/RECYCLE	4	C	
	B. STORMWATER RUNOFF*						
	C. RECIRCULATED COOLING WATER	4.0 MGD					
	FROM SMALL COOLERS						
01E	D. LOW VOLUME WASTEWATER	1.0 MGD					
	*AVG FLOW NEGLIGIBLE						
	**CODISPOSED W/BEVILL WASTE AS ALLOWED UNDER DIETRICH.						

OFFICIAL USE ONLY (effluent guidelines sub-categories)

CONTINUED FROM THE FRONT

C. Except for storm runoff, leaks, or spills, are any of the discharges described in Items II-A or B intermittent or seasonal?

☒ YES (complete the following table)☐ NO (go to Section III)

1. OUTFALL NUMBER (list)	2. OPERATION(s) CONTRIBUTING FLOW (list)	3. FREQUENCY		4. FLOW				
		a. DAYS PER WEEK (specify average)	b. MONTHS PER YEAR (specify average)	a. FLOW RATE (in mgd)		b. TOTAL VOLUME (specify with units)		c. DUR- ATION (in days)
				1. LONG TERM AVERAGE	2. MAXIMUM DAILY	1. LONG TERM AVERAGE	2. MAXIMUM DAILY	
001	RECIRCULATED COOLING WATER POND DISCHARGE/BLOWDOWN Note: All data from 2001-2004 							

III. PRODUCTION

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?

☒ YES (complete Item III-B)☐ NO (go to Section IV)

B. Are the limitations in the applicable effluent guideline expressed in terms of production (or other measure of operation)?

☐ YES (complete Item III-C)☒ NO (go to Section IV)

C. If you answered "yes" to Item III-B, list the quantity which represents an actual measurement of your level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

1. AVERAGE DAILY PRODUCTION

a. QUANTITY PER DAY	b. UNITS OF MEASURE	c. OPERATION, PRODUCT, MATERIAL, ETC. (specify)	2. AFFECTED OUTFALLS (list outfall numbers)

IV. IMPROVEMENTS

A. Are you now required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrading or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

☐ YES (complete the following table)☒ NO (go to Item IV-B)

1. IDENTIFICATION OF CONDITION, AGREEMENT, ETC.	2. AFFECTED OUTFALLS		3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COM- PLIANCE DATE	
	a. NO.	b. SOURCE OF DISCHARGE		a. RE- QUIRED	b. PRO- JECTED

B. OPTIONAL: You may attach additional sheets describing any additional water pollution control programs (or other environmental projects which may affect your discharges) you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or planned schedules for construction.

☐ MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED

CONTINUED FROM PAGE 2

V. INTAKE AND EFFLUENT CHARACTERISTICS

A, B, & C: See instructions before proceeding — Complete one set of tables for each outfall — Annotate the outfall number in the space provided.
NOTE: Tables V-A, V-B, and V-C are included on separate sheets numbered V-1 through V-9.

D. Use the space below to list any of the pollutants listed in Table 2c-3 of the instructions, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE

VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

Is any pollutant listed in Item V-C a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

☒ YES (list all such pollutants below)

☐ NO (go to Item VI-B)

SEE ATTACHMENT A

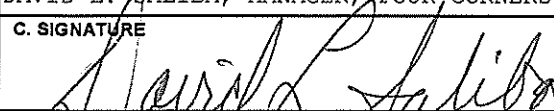
CONTINUED FROM THE FRONT

VII. BIOLOGICAL TOXICITY TESTING DATA	
Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?	
<input checked="" type="checkbox"/> YES (identify the test(s) and describe their purposes below)	<input type="checkbox"/> NO (go to Section VIII)

CHRONIC TOXICITY TESTING ON 01A, RECIRCULATED COOLING WATER RETURN, WAS DONE IN 2003 AND 2004. ACUTE AND CHRONIC TOXICITY TESTING ON 01A, RECIRCULATED COOLING WATER RETURN, WAS DONE IN 2005 AS REQUIRED BY THE NPDES PERMIT CONDITIONS WITH VARIANCE.

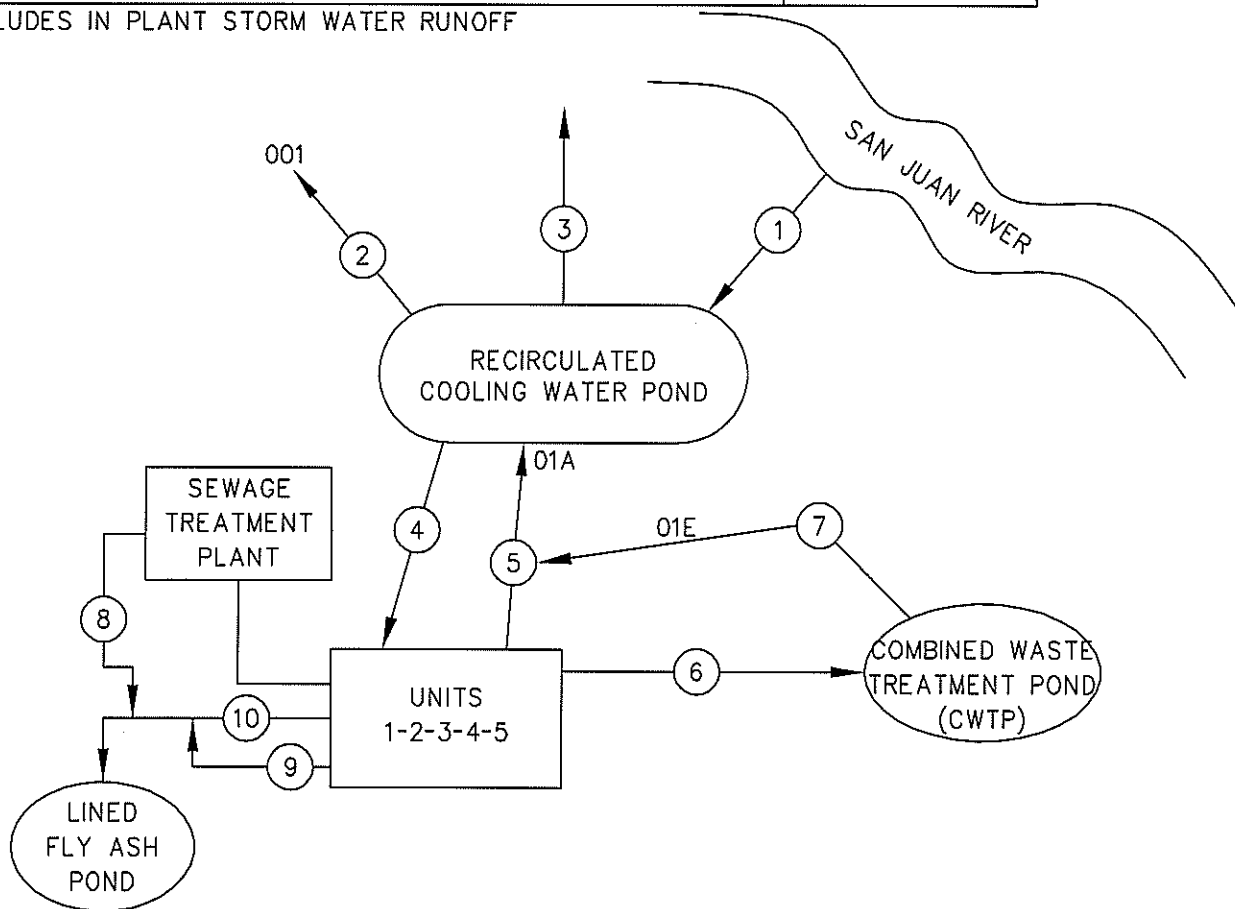
VIII. CONTRACT ANALYSIS INFORMATION	
Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?	
<input checked="" type="checkbox"/> YES (list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below)	<input type="checkbox"/> NO (go to Section IX)

A. NAME	B. ADDRESS	C. TELEPHONE (area code & no.)	D. POLLUTANTS ANALYZED (list)
	SEE TAB 7 OF THIS PERMIT APPLICATION.		

IX. CERTIFICATION	
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	
A. NAME & OFFICIAL TITLE (type or print)	B. PHONE NO. (area code & no.)
DAVID L. SALIBA, MANAGER, FOUR CORNERS POWER PLANT	(505) 598-8209
C. SIGNATURE	D. DATE SIGNED
	050407

NO.	TITLE	AVG. RATE (MGPD)
1	RIVER MAKE-UP; COOLING WATER INTAKE	17-28
2	RECIRCULATED COOLING WATER POND DISCHARGE/BLOW-DOWN	3-14.6
3	SYSTEM EVAPORATION	13.3
4	SERVICE & RECIRCULATED COOLING WATER INTAKE*	1000-1726.7
5	RECIRCULATED COOLING WATER RETURN	1000-1713.6
6	COMBINED WASTE STREAMS *	13.0
7	CWTP (L.V.W.) DISCHARGE	13.0
8	SANITARY SEWAGE	.027-.04
9	CHEMICAL METAL CLEANING WASTES	.100
10	FLUE GAS DESULFURIZATION WASTEWATER	0.8-1.4

* INCLUDES IN PLANT STORM WATER RUNOFF



4	4-24-07	AS-BUILT	MDC		HB		BS	
3	2-23-07	GENERAL REVISIONS	MDC		HB		BS	
2	10-4-05	CHG. NO. 2 FROM 14.7 TO 14.6 MGPD	MDC		WB	WB	BS	
1	9-27-05	CHG. NO. 8 FROM .1 TO .04 MGPD & NO. 9 FROM .005 TO .100 MGPD AND REVISED TEXTS	MDC		CW	CW	BS	
NO.	DATE	REVISION	DWN	CHD	EXD	RVWD	APVD	W A

FOUR CORNERS
COMMON
N.P.D.E.S PERMIT APPLICATION
WATER FLOW LINE

DATE 08-24-02

SCALE NONE

W.A. _____



DWN GK\MC EXD RDB

APPROVED

CHD WB RVWD DB

D. BLOOMFIELD
ENGINEERING SUPERVISOR

THIS DRAWING IS CONFIDENTIAL AND SHALL NOT BE USED OR REPRODUCED IN ANY PART WITHOUT WRITTEN CONSENT OF PINNACLE WEST CAPITAL CORPORATION.

UNIT	DISC	TYPE	SYS	NUMBER	SHEET
FC	C	16	CEM	114058	1

DRAWING: T:\gen\MonroeCharles\Checkin\FC-C-16-CEM-114058-1.dwg

UNITS 1, 2 & 3:

1. SCRUBBER SERVICE WATER
2. CIRCULATING COOLING WATER
3. FIRE WATER
4. SERVICE WATER
5. EQUIPMENT COOLING WATER (SEE SHEET 2 FOR SPECIFIC LIST)

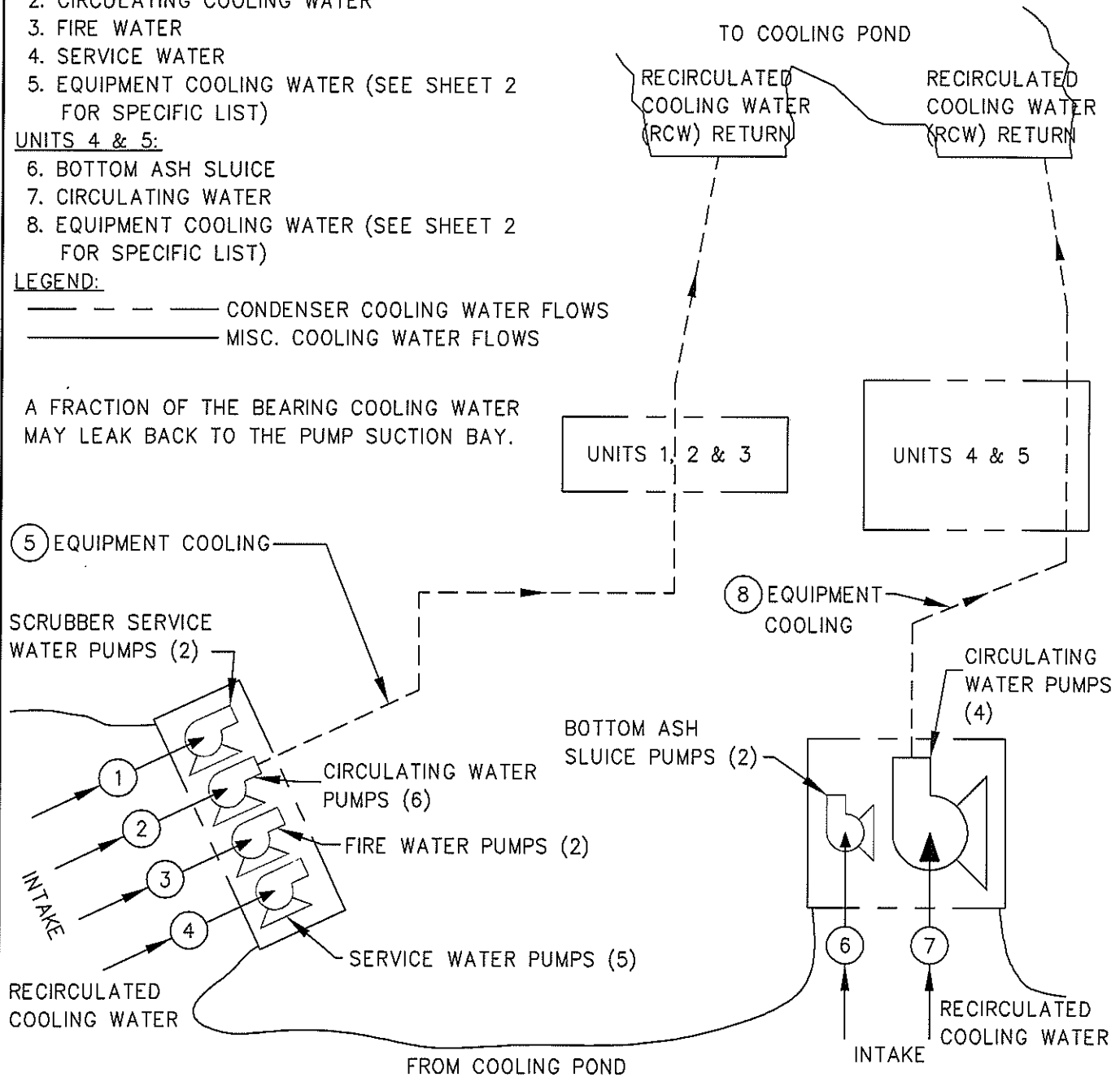
UNITS 4 & 5:

6. BOTTOM ASH SLUICE
7. CIRCULATING WATER
8. EQUIPMENT COOLING WATER (SEE SHEET 2 FOR SPECIFIC LIST)


LEGEND:

- CONDENSER COOLING WATER FLOWS
 ----- MISC. COOLING WATER FLOWS

A FRACTION OF THE BEARING COOLING WATER MAY LEAK BACK TO THE PUMP SUCTION BAY.



5	03-02-07	TEXT MODIFICATIONS	MDC		HB		BS	
4	02-23-07	GENERAL REVISIONS	MDC		HB		BS	
3	09-30-05	ADDED NOTE	MDC		CW	CW	BS	
NO.	DATE	REVISION	DWN	CHD	EXD	RVWD	APVD	W A

FOUR CORNERS COMMON N.P.D.E.S. RECIRCULATED COOLING WATER FLOW DIAGRAM	DATE <u>08-17-92</u>							
	SCALE <u>NONE</u>							
	W.A. _____							
	DWN	MDC	EXD	RDB	APPROVED D.C. BLOOMFIELD ENGINEERING SUPERVISOR			
	CHD	WB	RVWD					
THIS DRAWING IS CONFIDENTIAL AND SHALL NOT BE USED OR REPRODUCED IN ANY PART WITHOUT WRITTEN CONSENT OF PINNACLE WEST CAPITAL CORPORATION.			UNIT	DISC	TYPE	SYS	NUMBER	SHEET
			FC	C	16	CWS	114046	1

DRAWING: T:\gen\MonroeCharles\Checkin\FC-C-16-CWS-114046-1.dwg

⑤ EQUIPMENT COOLING WATER

UNITS 1, 2 & 3:

SCRUBBER SERVICE WATER PUMP BEARING COOLING WATER (2-PUMPS)
 CIRCULATING WATER PUMP BEARING COOLING WATER (6-PUMPS)
 FIRE WATER PUMP BEARING COOLING WATER (2-PUMPS)
 SERVICE WATER PUMP BEARING COOLING WATER (5-PUMPS)
 TURBINE LUBE OIL COOLING WATER (3-UNITS)
 HYDROGEN COOLER COOLING WATER (3-UNITS)

⑧ EQUIPMENT COOLING WATER


UNITS 4 & 5:

BOTTOM ASH SLUICE PUMP BEARING COOLING WATER (2-PUMPS)
 CIRCULATING WATER PUMP BEARING COOLING WATER (4-PUMPS)
 TURBINE LUBE OIL COOLING WATER (2-UNITS)
 SAMPLE CHILLER COOLING WATER (2-UNITS)
 BOILER FEED BOOSTER PUMP BEARING COOLING (6-PUMPS)
 AUXILIARY TURBINE LUBE OIL COOLING (2-UNITS)
 AIR CONDITIONER COOLING RETURN (2-UNITS)
 AIR COMPRESSOR (3-COMPRESSORS)
 CONDENSER VACUUM PUMP COOLER COOLING (3-PUMPS)
 ISOPHASE BUS COOLER COOLING (3-UNITS)
 STATOR WINDING HEAT EXCHANGER COOLING (2-UNITS)
 HP GENERATOR HYDROGEN COOLER COOLING (2-UNITS)
 HP ALTERNATOR AIR COOLER COOLING (2-UNITS)
 LP GENERATOR HYDROGEN COOLER COOLING (2-UNITS)
 LP ALTERNATOR AIR COOLER COOLING (2-UNITS)
 COOLING WATER PUMP BEARING (3-PUMPS)
 BOTTOM ASH FLUSH BEARING COOLING (2-PUMPS)
 SEAL AIR FAN BEARING COOLING (4-FANS)
 SCREEN WASH PUMP BEARING COOLING (2-PUMPS)

BAG HOUSE:

AIR COMPRESSOR COOLING (4-COMPRESSORS)
 DIESEL FIRE PUMP COOLING (2-UNITS)

4	03-02-07	GENERAL REVISION	MDC		HB		BS	
3	02-20-07	GENERAL REVISION	MDC		HB		BS	
2	10-20-04	AS-BUILT	MDC		WB	WEB	BS	
1	10-19-04	GEN REV. & REDRAWN ONTO AUTO-CAD	MDC		WB		DCB	
NO.	DATE	REVISION	DWN	CHD	EXD	RWVD	APVD	W A

FOUR CORNERS COMMON N.P.D.E.S. RECIRCULATED COOLING WATER FLOW DIAGRAM	DATE 08-17-92			
	SCALE NONE			
	W.A. _____		APPROVED	
	DWN MDC CHD WB	EXD RDB RVWD	D.C. BLOOMFIELD ENGINEERING SUPERVISOR	

THIS DRAWING IS CONFIDENTIAL AND SHALL NOT BE USED OR REPRODUCED IN ANY PART WITHOUT WRITTEN CONSENT OF PINNACLE WEST CAPITAL CORPORATION.						
UNIT FC	DISC C	TYPE 64	SYS CWS	NUMBER 114046	SHEET 2	

DRAWING: T: \gen\MonroeCharles\Checkin\FC-C-64-CWS-114046-2.dwg